



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/785,960	02/16/2001	Yilin Zhao	CS90038	2853

7590 11/30/2005

Motorola, Inc.
Intellectual Property Dept. (RKB)
600 North US Highway 45, AN475
Libertyville, IL 60048

EXAMINER

FERGUSON, KEITH

ART UNIT	PAPER NUMBER
----------	--------------

2683

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/785,960	Applicant(s) ZHAO ET AL.	
	Examiner Keith T. Ferguson	Art Unit 2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 11-15, 19-24 and 29-31 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 and 25-28 is/are allowed.
- 6) ☒ Claim(s) 16-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Transitional After Final Practice

1. In view of the Pre-Brief Conference Request filed on October 24, 2005, PROSECUTION IS HEREBY REOPENED. A non-final office action is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

***.

Art Unit: 2683

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 16-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 16 addresses a data structure (i.e. an ephemeris data issue identifier with two fields). A data structure is considered functional descriptive material (i.e. the transmission to the mobile station is not sufficient post processing activity since it has not established a new use of a known process).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kingdom et al. in view of Pratt, newly recited reference.

Regarding claims 16, Kingdom et al. discloses a GPS ephemeris data issue identifier (identity of satellites, clock correction and differential correction) for transmission to a GPS enabled mobile station (MS) in a cellular communications network (paragraph 0023 line 1 through paragraph 0026 line 7). Kingdom et al. differs from claim 16 of the present invention in that it does not explicit disclose a first field with satellite identifier data; and a second field with an ephemeris sequence number. Pratt teaches a terrestrial station transmits ephemeris data in a short message service (SMS) to a mobile receiver to help aid the mobile receiver to determine its position (col. 5 line 1 through col. 6 line 9). Pratt further teaches the ephemeris data includes a data description (first field) that includes satellite position data (fig. 2), and a designation field (second field) that contains the number of satellites in view (x) (fig. 2 and col. 5 lines 1-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kingdom et al. with a first field containing a satellite identifier data; a second field with an ephemeris sequence number in order for the for the

Art Unit: 2683

base station to provide location assistance information of nearby satellites to the mobile station to help aid the mobile station in locating its position while reducing the mobile station scan time when searching for nearby satellites, as taught by Pratt.

Regarding claim 18, Kingdom et al. discloses a broadcast message (paragraph 0024 lines 1-7).

6. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kingdom et al. in view of Pratt as applied to claim 16 above and in further view of Farley et al., newly recited reference.

Regarding claim 17, the combination of Kingdom et al. and Pratt differs from claim 17 of the present invention in that it does not disclose the first field is at least 5 bits and the second field is at least 3 bits. Farley et al. teaches a pseudolite globe signal (175) containing ephemeris data is transmitted to aid a receiver (col. 5 lines 5-45), the ephemeris data contains frames and subframe that are 6 bits and 3 bits (col. 5 lines 30-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Kingdom et al. and Pratt with the first field is at least 5 bits and the second field is at least 3 bits in order for the base station to broadcast the satellite positions and number of satellites that may be in view in a definable broadcast message so that the mobile station can understand the ephemeris data when received, as taught by Farley et al..

Allowable Subject Matter

7. Claims 1-10 and 25-28 are allowed.

Art Unit: 2683

8. The following is a statement of reasons for the indication of allowable subject matter: Upon close review of the claims, the prior art of record and applicants remarks in the Amendment on page 10 line 19 through page 11 line 15, page 15 lines 6-21, page 19 line 9 through page 22 line 7 mailed June 3, 2004, it appears that the allowance of claims 1-10 and 25-28 is appropriate.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Loomis (U.S. Patent 6,225,945) discloses a GPS receiver using coarse orbital parameters for achieving a fast time to first fix.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith T. Ferguson whose telephone number is (571) 272-7865. The examiner can normally be reached on 6:30am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (571) 272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2683

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Keith Ferguson
Art Unit 2683
November 15, 2005

KEITH FERGUSON
PRIMARY EXAMINER



WILLIAM TROST
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600